Sustainability, Sustainable Development, and the Health Sector

Please note:

All graphs and graphics have been removed from the following
research presentation. The document can be ordered in its entirety
directly from the Development Information Services Clearinghouse
(DISC). To order a document from the DISC, send a message
containing the document identification (PN) number and title via Internet
(docorder@disc.mhs.compuserve.com), via the Agency Streetalk
list, (docorder), or by telephone (703) 351-4006.

Issue Paper No. 1: Sustainability, Sustainable Development, and
the Health Sector

Sustaining the Vision: Lessons for USAID's Move Toward
Sustainability and Sustainable Development

by Jim Esselman
October 1994

Document Number: PN-ABT-155

Research & Reference Services
United States Agency for International Development
Center for Development Information and Evaluation
Room 203, SA-18
Washington, D.C. 20523-1820

Overview of the Series

"We humans have a kind of tunnel vision. We only see what we can
use. We have not been able to see until recently that it's
useful to maintain the integrity of the organism." -- Howard
Rheingold

Prepared by Diane Russell, Research Manager, PPC/CDIE/DI/R&RS

This series of issue papers was prepared as a complement to the
U.S. Agency for International Development strategy papers and the
strategy implementation guidelines to assist USAID's move toward
sustainable development. It provides decision makers with
information on definitions, concepts and lessons learned in
sustainability and sustainable development from inside and
outside USAID, and looks at how these concepts are applied within
different sectors. The reader will find that, in this series,
there are different types and levels of analysis applied to
looking at different sectors. This variation reflects the
materials available and used, the nature of the sectoral issues,
and the viewpoints and experiences of the authors.

The series is meant to stimulate dialogue within the Agency that
will lead to sharing resources and experience. Given the
complexity of the topic and vastness of the information re-
sources, however, this paper cannot be a definitive treatment of

the subject. In addition, it does not express the views of the Agency nor has it attempted to implement a comprehensive survey on attitudes and level of knowledge about sustainability within USAID.

The research has involved reviewing USAID and non-USAID literature, analyzing project information from the Development Information System (DIS), working with individuals from the former International Development Management Center (IDMC) and the IRIS (Institutional Reform and the Informal Sector) Project to get a sense of the history and scope of sustainability within USAID, and interviewing key informants within and outside the Agency.

The series begins with Jim Esselman's paper on sustainability and health. As there was an extensive history of USAID experience in relation to sustainability in this sector, the paper concentrates mainly on the Agency experience. The final section of the paper brings up some key issues in relation to health projects and sustainable development.

The second paper, by Dana Wichterman, on economic growth and sustainability, presents both USAID and other donor experience in designing and implementing sustainable economic growth projects, highlighting the relative difficulty in finding consistent definitions and sustainability materials in this diverse sector. This paper also presents recent discussions on economic growth and sustainable development.

Democracy projects, democracy itself, and sustainability are addressed in the third paper, where Heather McHugh looks at these issues through various lenses, and as key elements of sustainable development.   As a relatively new concern for USAID, democracy and governance activities are being defined and fleshed out, and recent lessons are presented.

"Green" environmental issues relating to agriculture and natural resource management, discussed in Diane Russell's paper, have the most robust theoretical literature relating to sustainability and sustainable development, but USAID lessons are relatively new. This fourth paper thus applies the most recent lessons and models to the elaboration of the strategies for sustainable development.

The final paper draws from these works and others to show how these lessons, models and debates can be used by USAID decision makers in the strategic and analytic process of sustainable development.

Definitions

Sustainability is:

A measure of how the growth, maintenance, or degradation of a resource or set of resources affects a population. Indicators are used to measure sustainability. A resource can be natural or

human, and includes knowledge, technical, financial and other social systems.

A property of processes, investments, technologies and systems as they affect resources available to a population over time. Processes such as policy reform, investments made by donors, governments or other groups, technologies such as improved crop varieties or vaccination programs, and systems such as a land tenure and legal systems have an impact on access to, valuation and sustainable use of resources. The extent of local participation in and ownership of a process, investment decision, technology development and system is seen to be crucial to sustainability.

Fluid and ever-changing: there are tradeoffs and substitutions among resources and systems, as valuation and access change over time. Nevertheless, many theorists of sustainable development argue that natural resources are, ultimately, finite and that certain processes, investments, technologies or systems can quicken or slow the pace of resource depletion.
In its broadest interpretation, environmental sustainability refers to the measurement of change in the resource base that supports existing populations. The renewal capacities of natural resources are determined by growth and development cycles, which can be altered through technology innovations. Development investments for a given population must calculate the rates of resource degradation and regeneration, and costs and benefits of different technology packages, in relation to the resources needed and available. An example is soil fertility, which can be sustained by combinations of fallowing land (land intensive), technology infusions (capital intensive), or the adoption of sustainable agroecological systems (labor intensive).

Economic sustainability is the ability of a population to generate revenue to maintain itself in a market economy, and produce a surplus to invest in security, research and development, infrastructure, and social safety nets. At the local level, it is the ability to maintain food, income and health security so as not to deplete the resource base and drive away young people. Balancing investments in governments and communities, public and private sectors, and gauging growth potential in relation to environmental and equity concerns, is part of the sustainable development process.

Resources are valued and used within the human framework of ideas and social structures. Social sustainability relates to the soundness, richness and flexibility of organizations and institutions that govern access to and transmission of resources. Supporting institutional sustainability does not mean sustaining specific institutions, however, but building frameworks--e.g., legislative, regulatory, informational and financial--that allow people to sustain institutions. Sound institutions enable societies to use and allocate resources in a transparent and efficient manner.

Benefit Sustainability

Within the development community, sustainability refers to the ability of benefit flows to be maintained after project funding ceases. It is important to note that benefit sustainability does not imply that the project itself will continue. In fact, benefits are usually best sustained by beneficiaires themselves through NGOs, governments, or community groups, after the initial USAID investment. Donors may need to sustain benefits over a longer time frame, however, to reach particularly disadvantaged, marginalized or poorly organized beneficiary populations. The calculation of benefit sustainability--what needs to be sustained over what time frame--is discussed in Paper 5 in this series.

A great deal of attention has focused on benefit sustainability over the years and much is known about how to accomplish it, but there has been limited success in refocusing and redesigning for sustainability.

Financial Sustainability

Financial sustainability is a component of benefit sustainability that concerns management capability and other resources for eventual self-financing of development investments by beneficiaries. Calculating financial sustainability is part of the planning for sustainable development, which, as noted, is an analytic process rather than a development outcome.

Sustainable Development

The term "sustainable development" was first used in the World Conservation Strategy in 1980 and widely disseminated by the Brundtland Report (WCED 1987). In USAID, the concern for sustainability emerged from the experiences of integrated rural development and infrastructure projects that involved significant investment but were not supported by the local population or the government after project funding ceased (DAI 1982). Thus USAID's major emphasis until recently has been on benefit sustainability.

With the publication of Strategies for Sustainable Development (USAID 1994), the Agency entered a new era where benefit sustainability, a goal that still needs to be addressed, was linked to the process of sustainable development. The strategy papers defined sustainable development as "characterized by economic and social growth that does not exhaust the resources of the host country; that respects and safeguards the economic, cultural and natural environment; that creates many incomes and chains of enterprises; that is nurtured by an enabling policy environment; and that builds indigenous institutions that involve and empower the citizenry" (USAID 1994).

Sustainable Development is the process by which USAID and host country stakeholders analyze, plan, and negotiate USAID's investments in sustaining particular benefits over a given time frame. It links micro-level benefits with macro-level societal goals and objectives (Diwan 1994). As discussed in Paper 5, the overarching goals include increasing efficiency in the use of

resources, alleviating stress, and promoting equitable use of resources, as well as preserving a resource and knowledge base for future generations (intergenerational equity).

This process is enhanced by multiobjective analysis, participation, and inclusion. The investment decisions also have to be analyzed in light of U.S. and international objectives for sustainable development. Thus, sustainable development is defined at the highest level and includes such considerations as national and international security, global assessment of resource use and depletion, development of and access to technology, information infrastructures, and competition over access to natural resources and markets.

References Cited

CDIE. July - August 1990. A.I.D. Evaluation News "Focus on Sustainablity" (edited by Randal Joy Thompson).

DAI. May 1982. Toward Self-Reliant Development: A Guide for Evaluating the Sustainability of Project Benefits (Morss, E.R., P.R. Crawford and G.H. Honadle).

Diwan, Romesh. 1994. Sustainability and Sustainable Development. Paper prepared for the ANE Bureau's Financially Sustainable Development Cooperative Agreement.

IRIS 1993. Survey of ANE Managers for Draft Project Paper, Project SUSTAIN. USAID/ANE.

IRIS 1994. Draft Project Paper, Project SUSTAIN. USAID/ANE.

USAID. 1994. Strategies for Sustainable Development.

WCED. 1987. Our Common Future: The World Commission on Environment and Development. New York: Oxford University Press.

World Bank. 1985. Sustainability of Projects: First Review of Experience. Washington, DC: World Bank.

SUSTAINABILITY, SUSTAINABLE DEVELOPMENT AND THE HEALTH SECTOR

A. Introduction

This paper will focus on the issues related to the concepts of sustainability and sustainable development from the perspective of the health sector. For this purpose, sustainability is defined as the continuation or maintenance of project benefits after the withdrawal of project funding. Sustainable development is discussed in a broader sense as the permanent enhancement of the capacity of a society to improve its quality of life (USAID 1994:4).

USAID's understanding of the sustainability of its efforts in the health sector has evolved considerably over the last five to six

years, and important lessons have been learned. Health and its
role in sustainable development has received recent attention as
illustrated by USAID's new strategy papers and the aftermath of
the 1992 Earth Summit in Brazil. In order to determine the most
efficient and effective types of health interventions to support
in the context of sustainable development, USAID needs to address
the significant issues and questions presented by the
interrelationships between health activities and activities in
other sectors.

B.   Evolution of the Sustainability Concept in the Health Sector

The purpose of this part of the paper is to trace the development
of USAID's experience with the concept of sustainability in the
health sector, drawing from the numerous reports and evaluations
that have been produced on the topic. Rather than offering a
detailed, comprehensive analysis of sustainability, it is hoped
that this discussion will provide a perspective on where USAID
has been and serve as a catalyst for identifying future
directions of research, planning and evaluation.

A recent survey of the abstracts of USAID health sector project
papers shows that only about three percent of health related
projects explicitly address the issue of sustainability.   Taking
the years 1990-1994, however, this percentage rises to nearly 15
percent. This improved rate may reflect the increased attention
paid to sustainability over the last few years.

USAID has addressed the idea of sustainability since the early
1980s. The major concern at this time was finding ways to
finance recurrent costs of primary health care programs. The
1980 USAID Health Sector Policy Paper states explicitly that
assisted health programs "should be designed to enable developing
countries to sustain them independently" (USAID 1980:3). The
1986 USAID Health Policy Paper, describing the new child survival
focus of assistance, added improved management systems as another
key to improving the chances of sustainability. This included
information systems, training, supervision, drug/vaccine pro-
curement, and logistics systems.

Despite the delineation of these aims in its policy papers, a
1987 USAID literature review on the sustainability of health
programs found that the Agency and other donors had too often
emphasized getting projects started and running rather than
planning for long-term viability (Buzzard 1987). This study
pointed to three reasons for the lack of sustained impact:

Rapid turnover of staff at all levels that may have led to rapid
changes in priorities and a lack of follow-through on projects;

The tendency to reward staff who designed and implemented
projects on schedule despite neglect for post-project benefits;

The inability of most programs to measure impact, affecting donor
willingness to support programs and making cost-effectiveness
difficult to quantify.

Five criteria were identified as particularly important to enhancing sustainability including:

financing

community participation

host country policy (support for primary health care)

appropriate program design (vertical versus horizontal programs)

program management

Other reports dating from the same time period discussed additional issues related to sustainability, both in general and with regard to the health sector, but there remained a noticeable lack of empirical evidence on the subject.

In the late 1980s, the Center for Development Information and Evaluation (CDIE) undertook a series of studies on the sustainability of health assistance programs in Thailand, Guatemala, Honduras, Tanzania, Senegal, and Zaire. This was the Agency's first attempt to actually measure the level of sustainability associated with health project activities.

For this study, sustainability was defined as "the continuation of health benefits (outcomes) and activities (outputs) at least three years after U.S. project funding had terminated" (USAID 1990A:10). It was difficult to obtain complete uniformity among the individual studies due to differing factors between countries being examined, such as the depth and availability of information. Thus, the units of analysis in these studies included project components, projects, and project clusters (Ibid:14).

Most of the studies examined 16 factors that could potentially influence sustainability. These were divided into contextual factors, or those over which project managers had relatively little control, and project factors, or those that could be influenced more readily by the project (Ibid:12). The evaluations ultimately found, however, that ten factors significantly influenced sustainability, either positively or negatively.

Contextual Factors

The CDIE evaluation study determined that it was difficult to assess the impact of economic and political conditions on health projects within countries; however, cross-regional analysis revealed the role that these contextual factors can play. Of the six countries in the evaluation study, projects in Thailand were, on average, more sustainable than those in Central America (Guatemala and Honduras), which, in turn, were more sustainable than those in Africa (Zaire and Senegal). These results correlate with the relative economic conditions of the countries

in question (Ibid:28,29).

Furthermore, the CDIE evaluation study found that the difference in the levels of development in political infrastructure (i.e., government institutions with well- established administrative routines, adequate budgetary resources, and highly skilled officials) between regions corresponded with the variation in sustainability (Ibid:30).

The study included institutional strength as a contextual factor, referring to the organizational and technical capacity of the cooperating ministries within the host governments; however, this distinction as a contextual factor is not so obvious. Institution building and strengthening activities have been components of USAID health programs in several countries, usually taking the form of technical assistance, staff training, and management information support. In addressing the Thailand Ministry of Health's (MOH) institutional strength and its important contributions to sustainability, the study mentions USAID's role in providing financial assistance for the education and training of several senior MOH policy officials. Clearly, there is a certain degree of interplay between contextual and project factors.

Institutional strengthening can be a long, slow process that creates difficulties in demonstrating quick impact. Additional activities may be necessary for the success of institutional strengthening. For example, USAID currently is providing technical, administrative, and logistical support to increase the institutional strength of the Ministry of Health in Bolivia. To maintain support for these efforts, the mission has relied on the demonstrated effectiveness of its child survival activities:

Dramatic, high-impact health services build popular and political support for Ministry and USAID programs. This political support and positive public image of the program make it possible to continue with institutional-strengthening activities without being criticized for slow pace or lack of accomplishment (Martin 1992:85).

This demonstrates again how such contextual factors as national commitment and institutional strength may be influenced by project activities.

The last contextual factor, national commitment, was defined as "consensus among important decision makers and interest groups in the health sector that the goals and objectives of a project were a national priority" (USAID 1990A:32). Although the CDIE study seems to focus on the commitment of the host government in this case, it also touches on the importance of support from other stakeholders, such as the local community.

Project Factors

Project Effectiveness

One of the most important project factors found by the CDIE study to influence sustainability was project effectiveness (USAID 1990A:34). Projects that are effective or perceived as effective positively influence the decisions of all involved with the activity from health officials to both providers and beneficiaries (Ibid:34). Hard evidence of project outputs or impact on a problem being addressed, such as the number of services delivered, the number of health workers trained, or the number of health facilities built, are important for generating support, since stakeholders will be more likely to find the necessary resources to sustain a project that works (Ibid:34).

The role of project effectiveness in achieving benefit sustainability needs to be understood carefully: On the one hand, the CDIE study shows that results and effectiveness need to be demonstrated early to maintain national commitment for a project and increase the likelihood of sustainability; on the other, a focus on short-term impact without an eye to longer-term issues can be detrimental to the ultimate achievement of sustainability. Pursuing both short-term and long-term goals may be the best approach, as illustrated by the previously mentioned case of institutional sustainability in Bolivia. A longer timeframe is needed before the success of institutional strengthening activities can be demonstrated. By complementing these activities with short-term, high-impact activities, such as an immunization program, support can be generated to maintain both approaches. A good understanding of the timeframe under which a project should be expected to show results is essential.

It should be noted that although demonstrated project effectiveness may have an important influence on sustainability, there may be problems with including it among the group of other significant project factors since effectiveness itself may be a determinant of those other factors rather than an independent variable.

Project Integration

In the CDIE study, project integration is described as the integration of program or project administrative systems with existing hierarchical structures of the host country's ministry of health. This should not be confused with the integration of different types of health project services, such as maternal and child health care with family planning activities. Often, health projects will be designed with separate administrative structures in order to simplify the decision making process and implementation of a specific activity, such as vector control, immunizations, or oral rehydration therapy (Buzzard 1987:41). These are known as vertically organized programs. These programs can be expensive and wasteful, making them more difficult to sustain than projects that offer integrated services (Martin 1993:53).

Vertical programs can be vulnerable because they usually do not build wide support among administrators who have an interest in

seeing the project continue. Integrated services can draw several different players into association with a project, thus spreading the interest that exists in seeing the project activities continue (USAID 1990a:35). Although this strategy may complicate decision making more than a vertical program, the prospects for sustainability are higher. A balance between the greater effectiveness of vertical programs and the better sustainability of integrated programs is needed. One possible approach is to introduce a new activity initially in a vertical structure until experience and acceptance is gained, and then move to integrating the project into the existing health system (Martin 1993:39).

Financing

Probably the most frequently studied, though not necessarily the most significant, factor influencing sustainability is financing. Though it may be a necessary factor for the continuing provision of project benefits, it is not a sufficient one, as the examination of other factors has shown. The menu of financing mechanisms is diverse, but can be categorized broadly as either related to government budgetary funding, cost-recovery (USAID 1990A:36), or incorporation of the private sector. Government resources for health are scarce, and often they are earmarked for large hospitals and curative care programs, whereas most donor projects are more likely to target primary health care. USAID has tried to incorporate policy dialogue into some projects to encourage governments to devote more resources to the health sector, but factors such as debt, poor economic conditions, and public sector austerity make this dialogue very difficult (Martin 1993:62). Cost-recovery and other innovative financing mechanisms are being turned to more frequently. The following are some examples:

User fees. Charging the beneficiaries of health care for a portion of the costs. Fees can be set by the community, the individual care provider, the government, or a professional organization (Buzzard 1987:27,28). Buzzard also notes that "the success of fee-for-service programs depends on patients' willingness and ability to pay, on the availability of alternative delivery systems, and on the perceived quality and effectiveness of services" (Ibid:28). Despite the low incomes of the populations served by primary health services, the Bolivia child survival experience has shown that people will, and sometimes even prefer to, pay for services because they believe the quality of care is better (Martin 1993:63).

Incorporating the private sector. Private health care providers include midwives, traditional healers, private physicians and others who sustain themselves without government assistance (Buzzard 1987:29). In Bolivia, USAID has provided initial operating expenses and technical assistance for PROSALUD, a private sector primary health care organization that recovers its costs by collecting user fees from its low-income beneficiaries (Martin 1992:xi,xii). The system is close to achieving full self-financing thanks to solutions such as employee incentives,

cost controls, and cross-subsidies (Ibid:82).

Efficiency improvements to lower costs. This includes institutional arrangements that lower costs and expand coverage such as using health volunteers, para-professional health workers, and outreach services to local communities (Martin 1993:23).

Endowments. Financial arrangements that provide long-term support for PVO and NGO health care activities. Over the last five years USAID has become more involved with this mechanism to support education, agriculture, and natural resources projects. The Child Survival PVO Network project in Bolivia (PROCOSI) is supporting local PVOs by creating an endowment from the proceeds of a debt-for-development swap. The endowment will ensure a steady income for the PVO network allowing for long-term planning for health services (Martin 1992:87).

Questions related to financing include how to identify the level of financing necessary to sustain project activities and how to determine if a credible source of funding will be available (Stevens 1987:4). Stevens points out that the answers to these questions will always involve a "probabalistic kind of exercise," since there will always be a degree of uncertainty. If the former question is uncertain, a project should have built into it some means for determining what the potential level of post-project funding would be. Stevens gives the example of selectively withdrawing project inputs to determine the impact on the outputs in question. This raises the point of the potential necessity of "social experiment" projects to identify information that may be necessary to assess the potential for sustainability of projects in certain areas (Ibid:5). Stevens suggests that if the question of a credible post-project funding source is uncertain, USAID needs to address the following issues:

(a) What kind of information should be assembled pursuant to seeking an answer to this question? How much of what kinds of information do we require to make a credible case that the required funding will be available?

(b) How high a probability that the required funding will be forthcoming is required in order for a project to pass the sustainability test? For example, will, say, an 0.5 probability do, or do we require something closer to say, 0.9? (Ibid:5).

Stevens asserts that if USAID means to take sustainability seriously, these questions must be addressed.

Training

The CDIE study found that projects with strong training components were more likely to be sustained than those without (USAID 1990A:38). Some of these components, such as professional training at overseas institutions, have already been discussed in the section on institutional strengthening. The CDIE study points out that 1) training reinforces sustainability in that

trained individuals will usually be able to perform the same
services for which they were trained after project funding ends;
2) they will probably train others; 3) the costs of maintaining
in-country training are usually limited; and 4) trainers and
their students may form a constituency in support of continuation
of the activity (Ibid:39).

Negotiation Process

Another significant factor influencing sustainability is a
mutually respectful negotiation process involving give and take
between government and donor officials. Collaboration and
compromise are important ways of establishing support for a
program. Projects that are viewed by national officials as being
imposed by USAID are less likely to be sustained (Ibid:40).

Community Participation

The last significant factor to note is community participation.
This factor was found to be most important in projects involving
a cost-recovery mechanism. If beneficiaries are being asked to
pay part of the costs of a project, then their involvement in the
project will make the chances of success and sustainability more
likely (Ibid:40,41). USAID is placing increased emphasis on this
component of the development process in general. On November 16,
1993, the Administrator issued a Statement of Principles on
Participatory Development that outlined ten principles to guide
Agency personnel in identifying, designing, implementing, and
evaluating USAID programs and projects. Some of these principles
include:

Listen to the voices of ordinary people -- especially to people
whose voices tend to be stifled by more powerful groups in their
societies -- as USAID tries to discern national and local
priorities;

Aim to support the initiatives of indigenous communities and
organizations in defining USAID's strategies at a country level
and in pursuit of USAID's global objectives;

Assure that USAID projects and programs are accountable to the
end user; and

Overcome the tendency of projects to benefit only local elites by
using gender analysis and techniques for data collection and
consensus building such as participative rural appraisal (USAID
1993).

Further Studies on Sustainability

In 1990, the same year that the CDIE synthesis report on the six-
country studies appeared, a USAID Sustainability Working Group,
consisting of middle-management personnel from six bureaus, was
formed to review the experience of USAID and other donors in the
area of sustainability. After reviewing reports from the World
Bank, the Development Assistance Committee (DAC) and others, as

well as participating in a workshop sponsored by the Asia/Near East Bureau, the Sustainability Working Group confidently stated in its final report that we know what it takes for development activities and benefits to be sustained:

host-country ownership of and commitment to the development program;

host-country institutional capacity to provide and sustain the desired activities and benefits; and

the institutional flexibility to be responsive to changes in demand and environmental conditions in developing sustainable processes and sources of support (Callison 1990:1).

The question remained: How to achieve these ends? The accumulation of the CDIE evaluation results and other thinking on this topic laid the groundwork for developing a sustainability strategy through the African Child Survival Initiative/Combatting Childhood Communicable Diseases (ACSI/CCCD) project. This strategy offers explicit guidance on how to better plan and manage for sustainability in designing, implementing, and evaluating health projects. Five characteristics and conditions likely to improve the chances for sustainability are offered as project objectives, each with suggested activities for meeting those objectives. The list of potential activities is too long to include in this paper, and readers should refer to the sustainability strategy itself for further details. The identified project objectives include:

Perceived effectiveness

Integration and institution strengthening

Local financing, community participation, and private sector provision of services

Strong training component

Constituency building through a process of mutually respectful negotiation (USAID 1990b).

In addition, the strategy suggests a checklist of indicators to use in assessing the success of the efforts toward meeting these objectives.

The guidelines from this ACSI-CCCD strategy paper and the lessons learned from the CDIE six country evaluations were used to undertake four ACSI/CCCD sustainability assessments in late 1992 and early 1993 in Guinea, Lesotho, Nigeria, and Rwanda. The summary report on these assessments reinforced the findings of the CDIE evaluations and confirmed the usefulness of the predictors offered in the ACSI-CCCD strategy (Burkhalter 1993). These assessments, however, recommended that the sustainability strategy add ownership, the sense that projects "belong" to the people of the host country, and perceived affordability, the

perception of project activities and benefits by the government as affordable, to the list of objectives that should be sought (Ibid:3-4,3-5). Though the progress demonstrated by the findings of these reports is encouraging, the assessments also indicated that the sustainability strategy methodology is not as useful for assessing the sustainability of support components, such as training and health information systems, as it is for direct service components like immunizations and control of diarrheal diseases (CDD) (Ibid:vii).

It should be noted that the assessment from Lesotho suggests that use of the term "sustainability" can be confusing and misleading in that it mixes two elements:

1.It includes cost-benefit considerations, whereas the real issue is whether the investment of resources in a project is worth the future stream of benefits from the project, and

2.It includes intentions to change the fundamental way in which health sector institutions perform in relation to health care (Ibid:3-7).

Taking the first point, the Lesotho assessment argues that "projects should not be started unless there is appropriate evidence that the value of project benefits will provide an acceptable rate of return for the project's resources" (Ibid:3-7). From this perspective, preserving the flow of project benefits for several years after donor funding ends becomes a secondary issue. "Some projects may achieve such high payoffs during the period of project funding that future benefits are not required to justify the original investment" (Ibid:3-7).

The Lesotho assessment raises the question of whether project benefits should be sustained and, if so, for how long? As mentioned earlier, not every health project should explicitly address sustainability. If development assistance is seen as an investment in a country's ability to achieve and maintain "improved levels of economic and social well-being" (Rosenthal 1988:2), long-term impact and, thus, the sustainability of benefits, becomes a much more important issue. Rosenthal states that most projects have a combination of "investment" or long-term goals, and "consumption" goals, those that are achieved during the life of the project. "For such programs, the interpretation and relative importance of sustainability as a goal needs to be explicitly considered and appropriate expectations based on these considerations need to be established" (Ibid:2;emphasis in original text). Rosenthal concludes that:

sustainability (or any other attribute) should be no more important in evaluating a project than it was in planning, designing, and implementing it. If project sustainability is to be an important element in the assessment of projects, that priority needs to influence decisions made in the development and implementation of the project (Ibid:3;underline in original text).

To the extent that sustainability efforts imply changes in the way a host country implements or thinks about health activities, "the Lesotho report argues that such changes, while not necessarily wrong, should not be confused with success in a cost-benefit sense, should certainly be made quite explicit in the beginning [of the project], should not be swept under the cover of sustainability, and, in any case, are unlikely changes to achieve, at least in the timeframe of most USAID projects" (Burkhalter 1993:3-7).

Development assistance activities do represent a union between the donor's and the host country's interests and, as such, may change the priorities that the host country would have had if assistance had not been forthcoming (Rosenthal 1988:3). When donor support is withdrawn, host country priorities may shift as well, with resources formerly directed toward project activities put to other uses. Analagous to the Lesotho report, Rosenthal notes that explicit attention be paid to this concern when considering the long-term fate of project activities.

Many other USAID projects in addition to those mentioned above directly address sustainability in the health sector. USAID has made progress in defining the importance of sustainability in the health sector and identifying the factors that influence its achievement and implementation. The Agency has realized successes in several countries in the areas of financial and institutional sustainability, and although the synthesis review of the CDIE assessment of USAID's child survival program points out some shortcomings in the area of financial sustainability, these are partly due to a lack of planning for long-term maintenance of project activities. As greater attention is paid to the issues connected with sustainability from the earliest phases of USAID projects, improvements in the long-term impact of assistance should become evident. The main challenge is to use the knowledge and experience that has been gained to make sustainability a primary goal of USAID's work from the very beginning, not just an afterthought.

C. The Health Sector and Sustainable Development

The sustainability of health projects is important only as far as those projects contribute to sustainable development (again, understood to mean the permanent enhancement of the capacity of a society to improve its quality of life). Health is just one of the many factors that influence sustainable development along with population growth, the political environment, economic growth, and the natural environment. The relationships and interactions among these factors are quite complex, almost circular in nature. Although the exact nature of these interrelationships may not be understood fully, and it may be difficult to predict the impact that changes in one area may have on the others, it is important to recognize that linkages and trade-offs do exist when considering potential development activities (see tools for sustainable development in the final paper of this series).

For example, many of the major threats to human well-being are caused by environmental problems that are exacerbated by population growth and unsustainable levels of consumption. The consequences of deforestation alone illustrate these threats:

The loss of potential new drugs to combat diseases such as AIDS and cancer, and the loss of genetic diversity in food crops that could threaten future food supplies because of the loss of biodiversity;

The paths of disease vectors will change causing increased incidence of malaria, schistosomiasis, trypanosomiasis (Chagas' disease), and others;

Soil erosion and land degradation will reduce available agricultural lands and increase the threat of natural disasters like landslides;

The loss of forests as a carbon dioxide sink (also exacerbated by industrial emissions) increases the risks of global warming with potential consequences of reduced coastal areas and increased numbers of environmental refugees, increased incidence of famine and flooding due to changing weather patterns, increased mortality among elderly due to heat waves, and rising salinity of water tables making more land unfit for agriculture (Shapiro 1993).

Rather than attempt a broad treatise on the role of health in sustainable development, this section will simply touch on some of the issues affecting the landscape in which USAID will be working regarding this area. It is hoped that these observations will serve to stimulate more serious discussion of issues within USAID regarding health and sustainable development.

Expanding the Definition and Role of Health

The rationale for health assistance has centered on the belief that a healthy population is essential for economic growth and, simply, that health is a basic human need. This rationale is expanding and drawing greater international support. The emerging importance of health as a component of sustainable development is illustrated by its inclusion in Agenda 21, the objectives developed from the 1992 Earth Summit in Brazil, and in the Strategies for Sustainable Development developed by USAID. The World Health Organization (WHO) has been tasked with overseeing efforts to achieve the objectives described in Chapter 6 of Agenda 21, "Protection and Promotion of Human Health," including:

meeting primary health care needs

controlling communicable diseases

protecting vulnerable groups

meeting the urban health challenge

reducing health risks from environmental pollution and hazards.

These major objectives and other concerns addressed by Agenda 21 have provided the primary basis for the development of WHO's Global Strategy for Health and Environment (WHO 1993A:10). The global goals of this strategy are:

Achieving a sustainable basis for health for all (sustainable basis includes stabilized population growth and attainment of lifestyles and patterns of consumption consistent with ecological sustainability);

Providing an environment that promotes health (this includes reducing physical hazards and ensuring that everyone has the means to acquire the resources on which health depends); and

Making all individuals and organizations aware of their responsibility for health and its environmental basis (Ibid:11).

In order to reach these objectives, WHO will be engaging in activities on several fronts including environmental elements of basic health needs (focusing on the poor and underserved with an emphasis on capacity-building at the community level); awareness and community action; creating supportive environments for health; emergency preparedness and response; and environmental health information systems (Ibid:14-16).

USAID's health programs have long contributed to achieving many of the health objectives presented in Agenda 21. Moreover, USAID has announced through its Strategies for Sustainable Development that it plans to be a major player in the growing movement to address health and sustainable development. The Agency is particularly concerned with trying to alleviate the unsustainable burden of rapid population growth because of its linkages with poor health and a deteriorating physical environment, which in turn may harm economic growth and create political instability. USAID's operational approach will be founded on these principles and objectives:

Promoting the rights of couples and individuals to determine freely and responsibly the number and spacing of their children;

Improving individual health, with special attention to the reproductive health needs of women and adolescents and the general health needs of infants and children;

Reducing population growth rates to levels consistent with sustainable development; and

Making programs responsive and accountable to the end-user (USAID 1994:33-4).

In order to meet these operational objectives, USAID will direct most of its resources to the following areas:

Support for voluntary family planning systems;

Reproductive health care;

The particular needs of adolescents and young adults;

Infant and child health; and

Education for girls and women (Ibid:36,37).

The international health community has made tremendous progress toward alleviating many of the major public health problems afflicting the world. Life expectancy at birth in developing countries increased from 40 years in 1950 to 63 years by 1990 (World Bank 1993:1). UNICEF recently reported that incidence of child mortality from diarrhea, malaria, and other diseases continues to decline (UNICEF 1993). These successes have greatly improved the quality of life for millions of people.

Although it cannot be denied that good health is essential in order for people to make productive efforts toward supporting themselves and their communities, the success of public health programs may potentially exacerbate some problems. Besides family planning efforts, such as contraceptive promotion and urging child spacing, one primary component of USAID's efforts toward reducing population growth rates has been child survival activities, based on the theory that reduced child mortality rates will lead to lower fertility rates. An argument has been made that there is in fact no substantial evidence to support this relationship (King 1990:200). If reductions in mortality are not accompanied by reductions in fertility, population pressures may be exacerbated rather than eased, making it more difficult to achieve the objectives of sustainable development (Ibid:201). Although it may be an oversimplification of the matter, the events in Rwanda have been held up as an example of the catastrophes that can result from such population pressures.

King goes on to point out that this dilemma gives rise to two alternatives: 1) to pursue all practical public health interventions regardless of demographic consequences, thus exerting pressure on the ecosystem, or 2) not to pursue some public health interventions because of the danger of population increase, thus leaving some deaths unprevented (Ibid:201). This is a rather shocking option to consider, but King raises these issues not so much to call for scaling back public health interventions, but to call attention to the serious challenges facing public health planners in considering the relationships between health, population, and the environment. He suggests that the WHO update its definition of health to become: "Health is a sustainable state of complete physical, mental and social well-being, and not merely the absence of disease and infirmity" (Ibid:204).

D. Conclusion

The purpose of this paper has been to try to illustrate how USAID has approached the concept of sustainability in the health sector and to touch on some of the issues that arise when considering health and sustainable development. The evidence has shown that USAID has devoted a large amount of resources to trying to understand the components of sustainability and has achieved success in these efforts. Conclusions drawn from the numerous literature reviews and thought pieces on this topic accompanied by the empirical evidence generated from the six CDIE country studies, laid the groundwork for the development of the ACSI/CCCD sustainability strategy. The four ACSI/CCCD assessments that used this information for guidance demonstrated that USAID has learned well from its experience. The sustainability strategy should prove useful as guidance for the development of other projects in the health sector. This would continue the steady progress that has been made in this area.

By addressing sustainable development, USAID seems to be striking out into new territory in the health sector. Although some of the issues may be new, USAID has continuously, though not always explicitly nor successfully, addressed sustainable development through its health activities. Sustainable development provides a new framework within which to address health issues by taking into consideration the interconnectedness of all sectors, from economic growth to the physical environment to governance. It is hoped that the issues presented in this paper will help to stimulate discussion on how USAID can best address the challenges of sustainable development and health.

E.   References Cited

Banta, James, et al. 1991. Final Evaluation of Resources for Child Health Project (REACH). PD-ABE-866. Washington, D.C.: Agency for International Development.

Burkhalter, Bart. 1993. Summary: ACSI/CCCD Sustainability Assessments in Guinea, Lesotho, Nigeria & Rwanda 1992-1993. Washington, D.C: Agency for International Development.

Buzzard, Shirley. 1987. Development Assistance and Health Programs: Issues of Sustainability. USAID Program Evaluation Discussion Paper No. 23. PN-AAL-097. Washington, D.C.: USAID.

Callison, C. Stuart. 1990. Report of the Sustainability Working Group. Memorandum to Richard E. Bissell, AA/S&T, through Antonio Gayoso, Chairman, Rural Development Sector Council. Agency for International Development.

Griffin, Charles C. 1989. Strengthening Health Services in Developing Countries through the Private Sector. International Finance Corporation Discussion Paper No. 4. Washington, D.C.: World Bank.

Hansen, Gary. 1990. Terms of Endowment: A New USAID Approach to Institutional Development. Center for Development Information and Evaluation's Innovative Development Approaches No. 3.

Washington, D.C.: Agency for Internatioal Development.

King, Maurice. 1990. "Public Health and the Ethics of
Sustainability." Tropical and Geographical Medicine. vol. 42:
p. 197-206.

Lewis, Maureen A. 1988. The Private Sector and Health Care
Delivery in Developing Countries: Definition, Experience, and
Potential. PN-ABD-464. Washington, D.C.: Agency for
International Development.

Martin, Richard. 1993. USAID's Child Survival Program: A
Synthesis of Findings From Six Country Case Studies. Center for
Development Information and Evaluation. Washington, D.C.:
Agency for International Development.

Martin, Richard R., Patricia O'Connor, et al. 1992. Evaluation
of USAID Child Survival Programs: Bolivia Case Study. USAID
Technical Report, No. 5. PN-AAX-262. Washington, D.C.: Agency
for International Development.

Molyneux, M.E. 1991. "Sustainable Health." Editorial.
Tropical Doctor, vol. 21, no. 1: p. 2.

Rosenthal, Gerald. 1988. How Important is Sustainability in
Evaluating Projects?. PN-ABE-771. Washington, D.C.: Agency for
International Development.

Shapiro, Roger L. 1993. "The Effects of Tropical Deforestation
on Human Health." The PSR Quarterly, vol. 3, no. 3: p. 126-135.

Stevens, Carl M. 1987. USAID Health Projects: Comments on the
"Sustainability" Issue. REACH Project, John Snow, Inc. PN-ABC-
010. Washington, D.C.: Agency for International Development,
February.

United Nations Children's Fund. 1993. State of the World's
Children 1993. New York, N.Y.: UNICEF.

United States Agency for International Development. 1980.
Health Sector Policy Paper. PN-AAH-964.Washington, D.C.: USAID.

         . 1986A. Health Assistance Policy Paper. PN-AAV-
462. Washington, D.C.: USAID.
       . 1986B. Maternal and Child Health Care Promotion. PD-
AAU-340. Washington, D.C.: USAID.

       . 1990A. Factors Influencing the Sustainability of U.S.
Foreign Assistance Programs in Health, 1942-1989: A Six Country
Synthesis. USAID Evaluation Working Paper, No. 149. PN-ABK-410.
Washington, D.C.: USAID.

       . 1990B. Sustainability Strategy: [Africa Child
Survival Initiative - Combatting Childhood Communicable Diseases
Project]. PN-ABI-092. Washington, D.C.: USAID.

_____. 1992. Project Assistance Completion Report: Project 519-0329-G-00-6466-00 Center for the Support of Maternal Lactation. PD-ABF-147. Washinton, D.C.: USAID.

_____. 1993. "Statement of Principles on Participatory Development." Washington, D.C.: USAID.

_____. 1994. Strategies for Sustainable Development. Washington, D.C.: USAID.

World Bank. 1993. World Development Report: Investig in Health. Washington, D.C.: World Bank.

World Health Organization. 1993A. WHO Global Strategy for Health and Environment. Geneva, Switzerland: WHO.